

Patent Abstracts of Japan

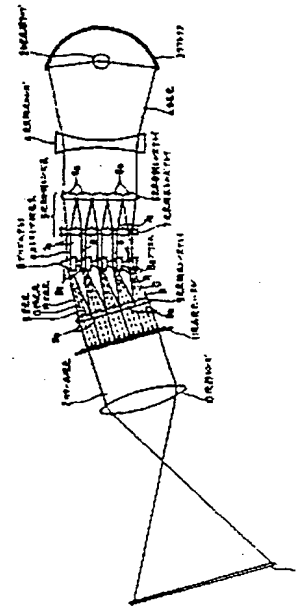
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TITLE : COLOR LIQUID CRYSTAL  
 PROJECTOR



ABSTRACT : PURPOSE: To project a color image having a sufficient luminance onto the screen surface by splitting a white light beam from a white light source into many pieces of stripe-shaped luminous fluxes, and making a light beam of each color area incident on liquid crystal display panel.

CONSTITUTION: A white color light A from a white color light source 2 is split into many pieces of stripe-shaped luminance fluxes (a), (a), and each stripe-shaped luminous flux (a), (a) is brought to a spectral processing by each prism 8a, 8a of a prism array 8, respectively and each stripe-shaped luminous flux (a), (a) is divided into a light beam R of a red area, a light beam G of a green area, and a light beam B of a blue area, the light beams R, G, and B of said each color area are made incident on a liquid crystal display panel 1, and a color image is displayed on the liquid crystal display panel 1. In this way, since it is unnecessary to provide a color filter on the liquid crystal display panel 1, an attenuation of a light energy in case of transmitting through the liquid crystal display panel 1 becomes only an attenuation by a transparent substrate and a transparent electrode and a liquid crystal layer of the surface and the reverse side of the liquid crystal display panel 1, and the light transmittivity of the liquid crystal display panel 1 can be raised.